



 **THE ILLUSTRATION**
Artist:
David Newton

CREATIVE SCANNING

Scanography

Push your scanner to its limits to create stunning hyper-real images. The secret? Scanographers do it upside down...

David Newton is a man who knows how to scan. You'll find the proof at [w] www.davidnewton.com, where you can view an array of sharp-edged graphic images that resemble photographs more than illustrations — all created using a scanner and a copy of *Photoshop*. Scanography describes images that possess elements of both photography and illustration, and yet do not sit easily in either category.

Most people who own a copy of *Photoshop* and a scanner have, out of curiosity, progressed beyond scanning pieces of paper and transparencies. Who hasn't placed their hand on the glass to see what happened, or used any object that happened to be nearby? Well if you haven't, you should have! By using your imagination, it's possible to produce images from your scanner that go far beyond what the machine was originally intended to do.

In this case, we want to create a hyper-real image of a bird of paradise flower, with hard edges and luminous colours. It will look photographic in that it's a representation of the 'real' world, but with digital manipulation — exaggerated shapes, colours and edges — to create an almost heightened sense of reality, this snapshot of everyday life will possess elements of illustration.

Photoshop is a vital tool here, but the type of scanner isn't that important. You can achieve great results from even the most basic equipment — it's not what you've got but the way that you use it...

**DOWNLOAD**

Click here to download the files you need to complete this tutorial

Scanography and expertise provided by David Newton: [w] www.davidnewton.com

Part 1: Preparation and scanning

First we carefully scan the flower. There are things we can do along the way to enhance the image, but getting a quality original scan will save time...

Doing it upside down

This is a big issue in scanography. Turning your scanner upside down means that the lens and light are now above the object being scanned, not below them as usual. There are many plus points to doing this. You can scan objects such as droplets of water without them falling onto the glass, or achieve a more realistic impression of a pile of objects (berries, powder, a metal chain for example) instead of that flattened 'underside' look you get otherwise. But (and it's a big but), your scanner may not like being flipped over onto its back – you need to decide if it's worth the risk. The choice is yours!



1 The flower we are going to use is perfect for this technique, because it has a smooth, waxy surface. This means that water droplets cling to it, even if it's upside down. This very preliminary scan shows what the flower looks like in its raw state. It's striking, but it could look even more interesting...



2 Enhance the flower by cleaning it, then coating it with a light film of olive oil. Wipe off most of the oil, then sprinkle water droplets onto the flower. This scan shows the basic impression from turning the scanner upside down and holding the base (now the lid) away from the flower with a book. This stops the glass from touching the water and squashing all the droplets into pools on the flower's surface.



3 Photoshop means that you don't have to capture a whole scan – you can preview the image in your scanning software, scan the best-looking bits and join them all up. Scan at a high resolution, giving you a good close-up. This flower is already a good size, so it was scanned at 600dpi. Here we've just scanned the stalk. Notice how the water has spread at the top...

Getting a good scan

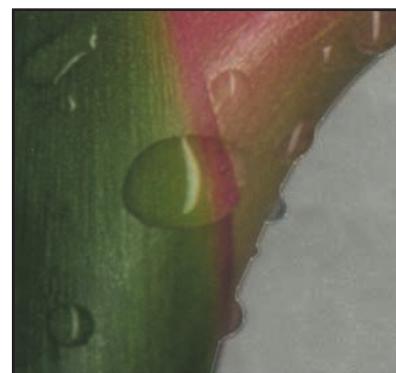
Another good reason to have the scanner upside down is so you can have the object sitting on a piece of white paper. When scanning 'normally', you can often lay an object face down on the glass and then put a sheet of paper over it to achieve the white background, but in this case it would be difficult if we were also trying to keep the flower millimetres away from the glass to prevent the water droplets breaking. Having paper covering everything over would prove extremely fiddly.



4 If you like, you can remove the flower from the scanner, clean it up, re-apply oil and water, then do another scan. There's a lot of trial and error in this. You'll have to get the hang of how to get the lens as close as possible to the surface of the object without the glass touching it. Here we have another scan of that part of the stalk where the water had spread – it now looks fine, so we'll join this onto the previous scan.



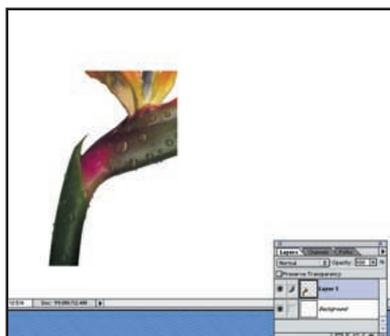
5 Keep scanning. Another reason to scan in segments, is that while one part of the object may be in focus, another part may not. In picture 2, the main body of the flower is in focus, but the stalk is receding. This is easy to rectify. Either change the object you're using to keep the heavy base of the scanner away from the lid, or slide the book (or similar) you're using nearer or further away from the hinge. This affects how much the scanner can close.



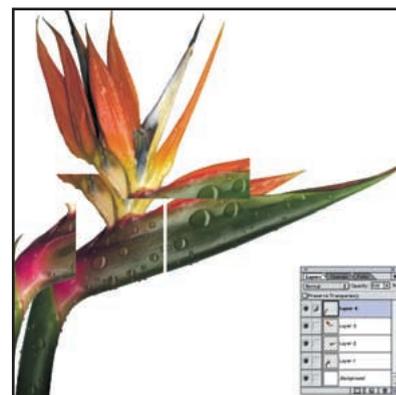
6 Once you've done all the scans you're going to need, it's time to get them all onto the same blank page. You could drag the whole scans onto the page, but it's better to cut each flower out from its background first. Use the Pen tool for a sharp line, zoom in and start drawing around the edges.



7 It's best to draw very slightly inside the edge of the stalk/droplets. They will be a bit blurred, and doing this will give the optical illusion that all the edges are sharply in focus. It shouldn't work, but it does!



8 Convert the path to a selection by dragging it in the Paths dialog box to the dotted circle icon. Then drag the selection onto a new file. Give yourself lots of space to play with. This new file is at 300dpi (standard res for print reproduction). The flower will appear twice as large as life, as it was scanned at 600dpi. The new file has therefore been created with dimensions of 50x50cm.



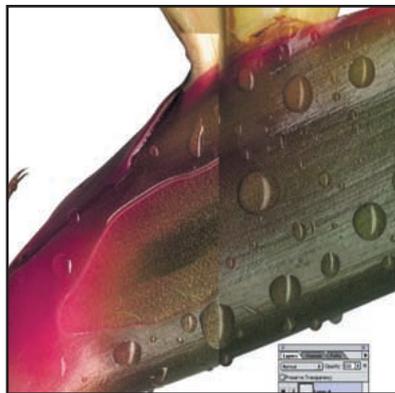
9 Repeat the process of path-creating and dragging onto the new file until all the elements you think you'll need are there. Now you're ready to stick everything together and enhance the quality of the image.

Part 2: Constructing and correcting the flower

The scans still look quite rough and ready, and are lacking the perfect, hyper-real quality we want. Let's put all the sections together and use some trickery...

The things that scanners love

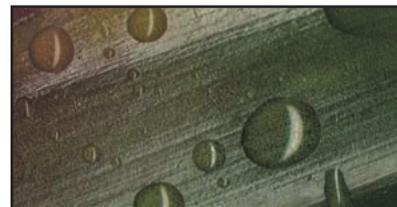
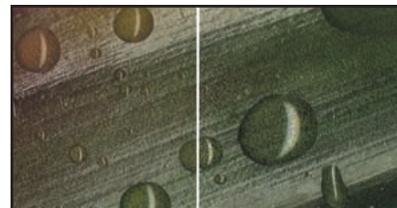
Scanners seem to love shiny objects — but not just any shiny object. They produce bizarre results if faced with anything mirrored. What they do take to, are: fish scales, pieces of technology made from brushed steel, oily flowers, jewellery, sliced fruit, drops of coloured liquid such as blood and so on. They also work well on anything that sits good and flat against the glass, as opposed to round objects such as apples or tomatoes.



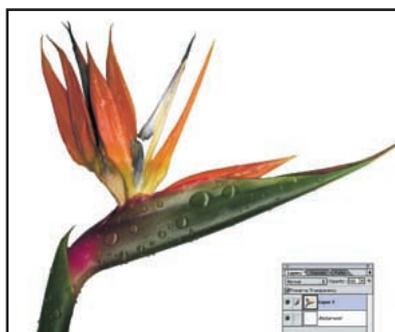
1 Zoom right in and put the first piece into place. This can be an exact overlap of the adjoining piece, or you may decide that it'd make the picture look better if the stalk were at a different angle. This image shows the two pieces lined up exactly.



2 The next step, if you have aligned the two pieces, is to erase part of the top layer with a diffuse airbrush. In this case, we want to get rid of that patch of 'squashed' water.



3 You can see in these two images show that all that was needed here was to place one section over the other, creating a seamless join.



4 The completed jigsaw should look something like this. If you're happy with the way it looks, merge the layers together and click Preserve Transparency in the Layers dialog box. This means that if there is any more work to be done on the structure of the image (and there is!), you'll be working within the current edges of the flower and not spilling over into surrounding areas.



5 Only one scan was made of the orange petals of this flower. It's become apparent that there's a patch of 'squashed' water on one. In this case it won't be possible to just erase the top layer to reveal an area of perfect droplets underneath, as in step 11, so a bit of cloning will be required.



6 You could use the Clone tool for this part, but it's probably better to actually cut out a segment of the petal and create a new layer for it (Select area, then Command+J). The segment has been moved across here to show which part has been duplicated.



7 Tilt the segment slightly, lay it over the offending area and change its hue subtly to fit in with the colour of the area it has been placed over. Erase softly around its edges to blend it in with the underlying area.



8 Use the Unsharp Mask filter to sharpen edges up and give the clarity that we're looking for. The thing to remember all along, is that we are after stunning, pin-sharp accuracy and an almost heightened sense of reality. This means slightly exaggerating shapes, colours, edges and so on.



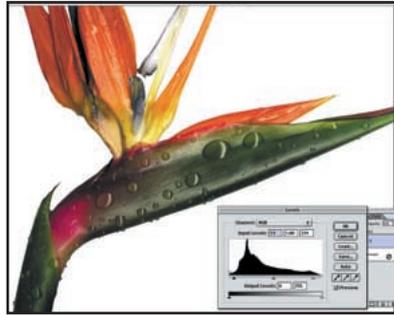
9 With this in mind, take regular looks at the object you are working on and decide whether certain parts aren't working. This darker petal is a bit ugly and doesn't really add to the overall beauty of the picture, so you may want to remove it.

Part 3: Keeping it hyper-real

Time to add the final dramatic touches. A few basic steps will pull it all together and push the image into the realm of classic scanography...

Surreal scanning

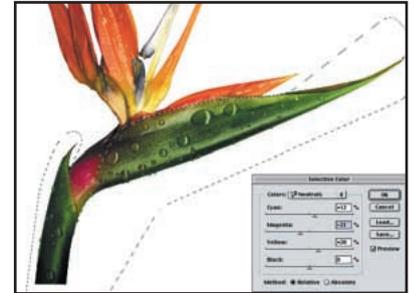
A great thing about scanography is that you can not only create images that are hyper-real, but also ones that are totally surreal. When objects are portrayed in such an in-your-face realistic way, it can often be far more arresting to go all weird with them, but giving your image an overly 'arty' and computer-generated look. For instance, most sci-fi images may look great, but they rarely make you exclaim about how realistic they look. Taking this flower as a starting point, how about cutting it across the stalk to expose flesh? Or having insects crawling all over it, but scaled down to make the flower look colossal? Or the petals being pulled off one by one by a lobster's claw? If all the elements involved look unmistakably real (and indeed were), the impact can be fantastic.



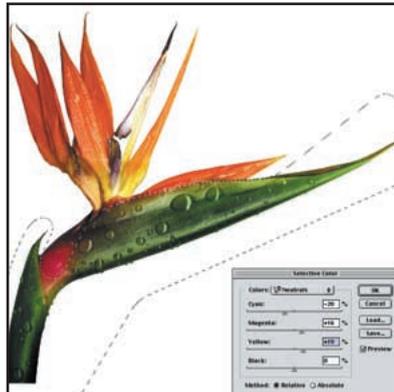
1 Altering Levels is a great way of making an image look more dramatic. It gets rid of boring mid-tones in a picture and amplifies the light and dark areas, creating exciting contrasts of tone. As we are constantly keeping in mind the need to heighten the graphic impact of the picture, this is a vital procedure. Drag the two end sliders in the Layers dialogue box inwards slightly until you like the effect.



2 Next we want to alter the colours slightly to really bring out and even exaggerate the flower's natural colours. Using the Lasso tool with a feather value of 100 (this softens its edges), draw around the areas of the flower with most green in them. By isolating certain areas we'll be able to more accurately control how the image is re-coloured.



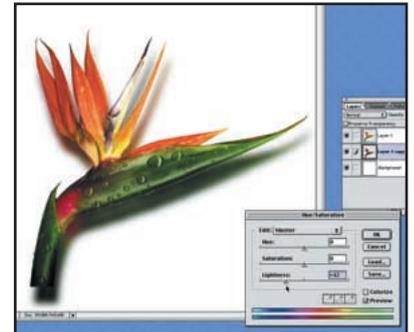
3 Open the Selective Colour dialog box (Image>Adjust>Selective>Colour) and select the Neutrals option. To alter colours subtly it's best to change any colour in the image that could be described as neutral (all the 'weaker'-coloured pixels that can stop a 'stronger' colour in the same area really achieving its full impact). By upping the Cyan and Yellow amounts and reducing the Magenta in this green area, the flower suddenly begins to look far more fresh.



4 Invert the area selected and call up Selective Colour again to deal with all the red/orange areas. Choose Neutrals, and this time decrease Cyan and increase Magenta and Yellow to give a great 'zingy' petal colour.



5 To create an interesting shadow, duplicate the flower layer, move it down and right slightly, then apply a Gaussian blur of 60. Shadows are great for scanography: they give the image a 3D quality, and help counteract the light-direction problem that dogs scanography – namely that the light source is always directly in front of the object. Creating a shadow like this makes the brain think that the light source is to one side. A more pleasing impression.



6 Darken the shadow using Hue/Saturation. This shadow is a lot more interesting than the ones that are usually created beneath objects (by duplicating the image, filling it with black and then blurring and reducing its opacity) because it still contains colour. It imitates the effect often seen in real life when an object's colours are reflected by a bright light onto the surfaces around them.



7 Now lighten the shadow by reducing its opacity to around 40 per cent.



8 To enhance the slightly hyper-real quality, change the background colour to a vivid, complementary colour that offsets the flower.



9 Because we've scanned at a good resolution, we can zoom into just part of the image. This works well with more graphic shapes that have an inherent excitement within them, like this bird of paradise flower. Its shape is already well known, and a more exciting picture can be achieved by cropping it. Create a new, smaller picture file and drag the flower and its shadow onto it, then move them around to find your ideal image. **CS**